California Regional Water Quality Control Board
North Coast Region

FACT SHEET

WDID No 1B82151OHUM
NPDES PERMIT NO. CA0024449

FOR

CITY OF EUREKA
GREATER EUREKA AREA, ELK RIVER WASTEWATER TREATMENT FACILITY

Humboldt County

SUMMARY

The North Coast Regional Water Quality Control Board (Regional Water Board) is proposing to renew NPDES permit No. CA0024449 to the City of Eureka for the discharge of municipal wastewater from the Elk River Wastewater Treatment Facility to the Pacific Ocean. The renewed permit will be effective through May 15, 2008.

This Fact Sheet explains the rationale and assumptions, including the regulatory and technical basis, used by the Regional Water Board in deriving the discharge limitations of the NPDES permit proposed for renewal.

PUBLIC INVOLVEMENT OPPORTUNITY

Interested persons are invited to comment on the tentative decision. Comments on the draft permit will be received until April 18, 2003.

All written comments submitted during the comment period will be retained at the Regional Water Board and considered in making the final decision on the application for permit renewal. The Regional Water Board will provide copies of the application, the tentative decision, and the Fact Sheet upon request. Persons who submit written comments will be notified of the final decision.

The applicant or anyone affected by or interested in the final decision may request a public hearing. The request must be filed within the 30-day comment period, and must indicate the interest of the party filing such a request, and the reasons why a hearing is warranted.

The Regional Water Board will hold a public hearing to consider the issue on May 15, 2003 at:

Regional Water Quality Control Board
5550 Skylane Boulevard, Suite A
Santa Rosa, CA 95403

Please submit written comments to the Regional Water Board to the attention of Mr. Roy O'Connor at the same address (above).

BACKGROUND INFORMATION

Location and Site Characteristics

The Greater Eureka Area, Elk River Wastewater Treatment Facility (WWTF) is located at 4301 Hilfiker Lane in the City of Eureka, Humboldt County. The WWTF began operation in 1984 and is located on the east side of Humboldt Bay near the mouth of the Elk River. It is located within the 139-acre Elk River Wildlife Management Area, which is owned and operated by the City of Eureka under the direction of the Department of Fish and Game.

Collection System

The Elk River WWTF serves both the City of Eureka and surrounding unincorporated areas within the Humboldt Community Services District (HCSD). The total population served is approximately 45,000.

Treatment Processes

Treatment at the Elk River WWTF consists of grit removal, primary clarification, trickling filters, secondary clarification, chlorination and dechlorination. Treated wastewater is contained in an effluent holding pond and discharged to Humboldt Bay via an outfall line which terminates at the east side of the shipping channel near Channel Marker No. 12. During periods of high influent flows, the WWTF has the ability to direct overflow from the effluent holding pond to a temporary holding marsh. When flows subside, water is pumped from the marsh back into the holding pond.

The outfall is 48 inches in diameter by 4,100 feet long and provides an initial dilution of 30 to 1. Discharge occurs only at ebb tide to assure that effluent is conveyed to the Pacific Ocean. Solids are treated by anaerobic digestion; and digested sludge is stored in two facultative lagoons. In summer months, sludge is dredged from the lagoons and transported by tanker truck to a 98-acre parcel owned by the City and spread and disked into the soil at an agronomic rate adjusted to balance nitrogen addition with its uptake by pasture grass.

The WWTF is designed to treat an average dry weather flow of 5.24 million gallons per day (mgd), a peak dry weather flow of 8.6 mgd, and apeak wet weather flow of 32 mgd. Flows between 12 and 32 mgd, which result from infiltration and inflow during the winter rainy season, receive only primary treatment but are blended with secondary treated wastewater before discharge to the Pacific Ocean.

Wastewater Characteristics

The following tables contain treatment facility performance data for conventional parameters and toxic pollutants since 1998.

Table 1
Summary of Effluent Data[a]
Greater Eureka Area, Elk River Wastewater Treatment Facility, 1998 – 2002

	1998		1999		2000		2001		2002	
	Avg[b]	**Max[c]**	**Avg[b]**	**Max[c]**	**Avg[b]**	**Max[c]**	**Avg[b]**	**Max[c]**	**Avg[b]**	**Max[c]**
Flow (mgd)	7.7	29.3	7.0	29	6.6	21.4	5.8	19.3	5.5	35
BOD_5 (mg/l)	7.2	16.1	9.0	21	11.0	47	17	39	10.1	18
BOD_5 Removal (%)	94	81[d]	95	85[d]	95	90[d]	93	89[d]	95	86[d]
Suspended Solids (mg/l)	8.4	44	8.0	17	10.2	34	10	28	7.6	18
Suspended Solids Removal (%)	94	87[d]	96	91[d]	96	94[d]	97	93[d]	97	95[d]
Settleable Solids (ml/l)	0.0	0.2	.04	0.2	.1	6	ND	ND	0	0
Fecal Coliform (mpn/100 ml)[e]	2.0	50	2.0	500	< 2	> 1600	$\leq$ 2.0	$\geq$1600	< 2	130
pH (s.u.)	6.4[f]	7.6	6.9[f]	7.6	6.6[f]	7.7	6.7[f]	8.3	6.4[f]	7.1
Grease and Oil (mg/l)	0	0	0	0	0	0	0	0	1.1	9.8
Chlorine Residual (mg/l)[g]	.04	.2	.06	.12	.01	.2	.06	.09	.004	.3

[a] Taken from Annual Reports prepared by the City of Eureka, except 2002 data, which was taken from January through September monthly reports.
[b] Average of Monthly Means
[c] Daily Maximum
[d] Minimum Monthly Mean
[e] All monthly medians were below the permit limitation of 14 organisms/100ml; and although maximum counts were high on occasion, the daily maximum limitation in the permit was not exceeded, as that limitation required that not more than 10 % of the samples in a 30 day period shall exceed 43 MPN/100 ml.
[f] Daily Minimum
[g] Measured at Outfall No. 001

Table 2
Summary of Effluent Data[a]
Toxics - Greater Eureka Area, Elk River Wastewater Treatment Facility, 1998 - 2002

	1998	1999	2000	2001	2002	
					Avg Daily[b]	Max Daily
Copper (µg/l)	21	24	21	21		
Zinc (µg/l)	30	22	26	28	57	160
Chloroform (µg/l)	1.8		1.5	1.7	1.6	1.9
Dibromochloromethane (µg/l)	1.3					1.3
Bromodichloromethane (µg/l)	2.1					2.1
Total THMs (µg/l)					4.4	
Toluene (µg/l)		5.0	1.0		2.8	13
1,4-dichlorobenzene (µg/l)		1.6				
Tetrachloroethene (µg/l)		2.2				
Total TCDD (pg/l)						23
Gross alpha (Pci/l)						-0.26

- BOD_5 and suspended solids concentrations in the effluent have consistently met limitations (30/45/60), although the WWTF did experience difficulty in meeting the 85%, 30-day BOD_5 removal requirement in February 1998.

- Oil and grease, fecal coliform, settleable solids, and pH are consistently within permit limitations, although during each of the past four years, at least one count of fecal coliform organisms has exceeded the daily maximum limitation of 43mpn/100 ml.

- Although average chlorine residuals in effluent have been low, daily maximum readings have exceeded the previous permit limitation of 0.1 mg/l (daily maximum).

- Most priority pollutants have not been detected in WWTF effluent in the past five years. With the exception of total TCDD and copper, all of the pollutants that have been detected in that time period have been measured at concentrations well below effluent limitations established by this Order and the previous Order.

- In one sample, which the City submitted as part of its permit renewal application, total TCDD was measured at 23 pg/l. This concentration is greater than the previous and current limitation of 0.12 pg/l. TCDD is, however, difficult to quantify at such very low concentrations. The Permittee will continue to monitor annually for TCDD to further quantify levels in the discharge.

[a] Data for the years 1998, 1999, 2000, and 2001 was taken from the City's Annual Reports, which include one set of analytical results for the priority pollutants. Data for the year 2002 was taken from the permit renewal materials, Supplemental Information Part D, Expanded Effluent Testing Data. All analytical results for toxics, which do not appear in this table, were reported, as ND (not detected).

[b] As stated in the Expanded Effluent Testing Data, the average daily and maximum daily concentrations appearing in this table are based on analysis of 5 samples, except for total TCDD and gross alpha radiation, which are based on the analysis of 1 sample

- Reporting by the City shows that acute toxicity in WWTF effluent has consistently been measured at 1 TUa in six quarterly analyses during 2001 and 2002. Chronic toxicity has ranged from 3 to 10 TUc in seven samples during the same period. These measurements of toxicity are below the previous permit limitations, as well as the toxicity limitations in this Order of 1.2 TUa and 31 TUc, both daily maximum limitations.

Current Permit Renewal Status

The current permit for this facility was issued on February 26, 1998. The permit has an expiration date of February 26, 2003. A Report of Waste Discharge was submitted to the Regional Water Board on August 22, 2002.

GENERAL BASIS FOR EFFLUENT LIMITATIONS

Section 301(a) of the Clean Water Act (CWA) makes the discharge of any pollutant to waters of the United States unlawful without a permit authorizing the discharge. Title IV of the CWA establishes the National Pollutant Discharge Elimination System (NPDES) permit program. Under the program, every point source must obtain a permit from the United States Environmental Protection Agency (U.S. EPA), or an authorized state. The U.S. EPA or the delegated state authority may issue a permit to discharge pollutants (Section 402) so long as the discharge meets certain requirements. The permit must assure that the discharge: (1) meets applicable and appropriate technology-based requirements (i.e., numerical limitations based on current available treatment technologies and/or best management practices to prevent and control discharges of pollutants) and (2) does not cause or contribute to violations of applicable receiving water standards.

The California Water Code (CWC) establishes water quality objectives necessary for the protection of beneficial uses of waters of the state. Water quality objectives for specific water quality parameters are contained in the water quality control plan for each Regional Board and have been adopted to conform to the State Water Quality Control Board's "Policy with Respect to Maintaining High Quality Waters in California." *The Water Quality Control Plan for the North Coast Region* (the Basin Plan) includes beneficial uses, water quality objectives, implementation plans for point source and nonpoint source discharges, prohibitions and statewide plans and policies. For the protection and enhancement of ocean water quality, the Basin Plan adopts by reference the provisions of the State Water Quality Control Board's *Water Quality Control Plan for Ocean Waters of California* (the Ocean Plan), which establishes beneficial uses and water quality objectives for the bacterial, physical, chemical, biological, and radiological characteristics of ocean waters adjacent to the California coast, outside of enclosed bays, estuaries, and coastal lagoons.

Technology-Based Effluent Limitations

As required by Section 301(b)(1)(B) of the CWA, the U.S. EPA has developed wastewater treatment standards for municipal publicly owned treatment works (POTWs) to identify the minimum level of effluent quality attainable by secondary treatment. These technology-based effluent limitations establish a treatment performance level for biochemical oxygen demand (BOD_5), total suspended solids (TSS), and pH. As described in 40 CFR Part 133, secondary treatment shall achieve the following effluent standards:

a. BOD_5 and Suspended Solids

i. The 30-day average shall not exceed 30 mg/l.
ii. The 7-day average shall not exceed 45 mg/l.
iii. The 30-day average percent removal shall not be less than 85%.

b. pH shall be maintained within the limits of 6.0 to 9.0.

Water Quality-Based Effluent Limitations

Pursuant to 40 CFR Section 131.1, states are required to designate the beneficial uses of waters bodies and establish water quality criteria to protect those uses. The State of California specifies the beneficial uses of the waters of the state and water quality objectives within Water Quality Control Plans (Basin Plans) or within the Ocean Plan for the protection and enhancement of ocean water quality. The Ocean Plan specifies procedures for calculating water quality-based effluent limitations (WQBELs) to be included in discharge permits issued by the State.

BASIS FOR DISCHARGE PROHIBITIONS

Discharge Prohibition A. 1 (discharge must be conveyed to the mouth of the Bay and dispersed during periods of ebb tide)

This prohibition is retained from the previous permit and defines the specific method of discharge (at the mouth of the Bay during ebb tide) necessary to regulate this discharge as an ocean discharge. In April 1980, with adoption of Resolution No. 80-10, the Regional Water Board recognized the ebb tide discharge concept as a viable alternative to a direct ocean outfall as a means of implementing the Water Quality Control Policy for the Enclosed Bays and Estuaries of California. With adoption of Resolution No. 80-87, the State Water Resources Control Board also found this concept to be consistent with the Policy.

Discharge Prohibition A. 2 (no discharges other than as described in the permit)

This prohibition is retained from the previous permit and is based on the Basin Plan, the previous Order, and State Water Resources Control Board Order WQO 2002-0012 regarding the petition of Waste Discharge Requirements Order No. 01-072 for the East Bay Municipal Utility District and Bay Area Clean Water Agencies.

Discharge Prohibition A. 3 (creation of pollution, contamination or nuisance prohibited)

This prohibition is retained from the previous permit and is based on Section 13050 of the California Water Code.

Discharge Prohibition A. 4 (discharge of sludge, except as authorized, is prohibited)

This prohibition is based on U.S. EPA restrictions regarding the disposal of sewage sludge found at 40 CFR Parts 503, 527, and 258 and in Title 27 of the California Code of Regulations.

Discharge Prohibition A. 5 (no discharge of waste from unpermitted points in the WWTF)

This prohibition is based on the Basin Plan to protect beneficial uses of the receiving water from unpermitted discharges, and the intent of Sections 13260 through 13264 of the California Water Code relating to the discharge of waste to State waters without filing for and receiving a permit to discharge.

Discharge Prohibition A. 6 (no bypass)

U.S. EPA regulations at 40 CFR Part 122.41(m) (4) generally prohibit the intentional diversion of waste streams from any portion of a treatment facility (bypass). There are exceptional circumstances described by these regulations in which bypass may be allowed by the permitting authority. These exceptions are commonly known as the bypass defense, which can be asserted, if (1) the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; (2) there were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime; and (3) the discharger submitted notice of the bypass within 24 hours of its occurrence.

Discharge Prohibition A. 7 (peak dry weather flow shall not exceed 8.6 mgd, nor shall the peak wet weather flow exceed 32 mgd)

Both effluent limitations restrict the peak dry weather and peak wet weather flows to the engineering design, treatment capacity of the Elk River WWTF.

SPECIFIC BASIS FOR NUMERICAL EFFLUENT LIMITATIONS

Effluent Limitation B. 1, Table A (Biochemical Oxygen Demand, Suspended and Settleable Solids, Fecal Coliform Bacteria, and pH)

Disinfected effluent discharged from the WWTF to the Pacific Ocean shall not contain pollutants in excess of the following limitations in Table 3.

Table 3 - Effluent Limitations for Discharge to the Pacific Ocean

	Units	Monthly Average[a]	Weekly Average[b]	Daily Maximum
BOD_5	mg/l lb/day[c] lb/day[d]	30 1313 3002	45 1969 4503	60 2625 6005
Suspended Solids	mg/l lb/day[c] Lb/day[d]	30 1313 3002	45 1969 4503	60 2625 6005
Settleable Solids	Ml/l	0.1	---	0.2
Fecal Coliform	MPN/100 ml	14[e]	---	43[f]
pH	s.u.	Not less than 6.0 or greater than 9.0		

- The concentration-based, weekly and monthly average effluent limitations for BOD_5 and suspended solids and the specified pH range are the technology-based, levels of treatment required of secondary plants. (40 CFR 133.102) The daily maximum concentration-based limitations for BOD_5 and suspended solids are retained from the previous permit (Order 98-9) and are appropriate to protect against acute water quality effects. The facility has demonstrated compliance with these effluent limitations through existing plant performance.

- The daily mass-based (lbs/day) effluent limitations for BOD_5 and suspended solids are retained from the previous permit and are calculated using the formula: 8.34 x Q x C, where Q is the average dry weather design flow rate of 5.24 mgd, C is the corresponding concentration-based effluent limitation, and 8.34 is a conversion factor.

- Limitations for settleable solids were present in the previous permit and are standard secondary treatment requirements.

- Effluent limitations for fecal coliform bacteria discharged to the Pacific Ocean are retained from the previous permit. These limits for bacteria are typical standards for secondary treated wastewater and are protective of the objectives of the Ocean Plan for protection of bacterial quality in the near shore waters of the Pacific Ocean.

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a The arithmetic mean of the values for effluent samples collected in a calendar month.

b The arithmetic mean of the values for effluent samples collected in a calendar week.

c the daily discharge (lbs/day) is obtained from the following calculation on any calendar day:

$$\text{Daily Discharge (lbs/day)} = 8.34 \sum_{N}^{N} Q_i C_i$$

in which N is the number of samples analyzed in any calendar day. Qi and Ci are the flow rate (mgd) and the constituent concentration, respectively, which are associated with each of the N grab samples that may be taken in any calendar day. If a composite sample is taken, Ci is the concentration measured in the composite sample; and Qi is the average flow rate occurring during the period over which samples are composited.

d The mass emission limitations apply during periods of high inflow/infiltration, when flow to the WWTF exceeds 5.24 mgd for the limitation period (daily, weekly, or monthly.)

e Median

f Not more than 10 percent of the samples collected in a calendar month shall exceed 43 MPN/100 ml.

Effluent Limitation B. 1, Table B (Toxic Pollutants)

The Ocean Plan, which was amended in 2001 during the lifetime of the existing permit, contains water quality objectives for 83 toxic pollutants, including total chlorine residual and acute and chronic toxicity. The previous permit contained effluent limitations for 77 toxic pollutants, all of which have a water quality objective listed in the Ocean Plan, as amended in 2001.

In accordance with procedures from the recently amended Ocean Plan, limitations in Table B for toxic pollutants were determined by adjusting the water quality objective to account for dilution and background levels of each pollutant, using the following equation.

Ce = Co + Dm (Co – Cs), where:

Ce = the effluent concentration limit, µg/l
Co = the water quality objective to be met following initial dilution (presented in the Ocean Plan)
Cs = background seawater concentration, where Cs = 0, except for As, Cu, Hg, Ag, and Zn, as presented in the Ocean Plan.
Dm = maximum probable initial dilution expressed as parts seawater per part wastewater. Effluent limitations contained in this Order are based on Dm = 30

For the majority of Table B toxic pollutants, the effluent limitations from the previous permit have not been modified and are consistent with the most recently amended Ocean Plan.

This Order adds limitations for chlorodibromomethane, dichlorobromomethane, N-nitrosodi-N-propylamine and heptachlor epoxide, as these pollutants were assigned a water quality objective by the amendments to the Ocean Plan in 2001.

Limitations for acute toxicity and several toxic pollutants (thallium, 1,2-dichloroethane, 1,1-dichloroethylene, heptachlor, isophorone, 1,1,2,2-tetrachloroethane, tetrachloroethylene, and 1,1,2-trichloroethane) have been made more restrictive than in the existing permit to reflect corresponding, more restrictive changes in water quality objectives, which became effective with the amendment to the Ocean Plan in 2001.

For some other toxic pollutants, water quality objectives have not changed; however, effluent limitations within Table B represent changes from limitations within the previous Order to better reflect the Ocean Plan objectives and the available dilution. These toxic pollutants and their new and previous limitations are as follows.

	Effluent Limitation – µg/l					
	Order No. R1-2003-0045			Order No. 98-9		
	6 mo. Median	Daily Max.	Instant. Max.	6 Mo. Median	Daily Max.	Instant. Max.
mercury	1.2	4.9	12.4	1.6	4.9	12.4
selenium	465	1,860	4,650	5	20	50
nickel	155	620	1,550	8.3	32	80
endrin	.06	0.1	0.2	0.6	0.1	0.2
	30 Day Average			30 Day Average		
PAHs	.27			.027		

The effluent limitations for mercury and endrin, in this Order, are slightly more restrictive than the previous Order and reflect the appropriate application of Ocean Plan requirements. Based on the general absence of toxic pollutants in WWTF effluent, the City should continue to meet effluent limitations for mercury and endrin.

Effluent limitations for nickel, selenium, and PAHs in this Order are less restrictive than in the previous Order. In the previous Order, the effluent limitations for nickel and selenium were developed without a dilution factor. Consistent with the Ocean Plan provisions that allow for dilution, new limits in this Order reflect the 30 to 1 dilution provided to the Permittee's ocean discharge. The less restrictive effluent limitations of this Order for selenium, nickel, and PAHs, which reflect the correct technical application of water quality objectives, are permissible exceptions to the anti-backsliding provisions of the Clean Water Act, as described at Section 402 (o)(2)(B)(ii) of the Act.

The Order includes an acute toxicity daily maximum limitation of 1.2 acute toxicity units (TUa) but does not retain the monthly and weekly average limitations for acute toxicity (1.5 and 2.0 TUa, respectively) of the previous permit. These changes are consistent with the Ocean Plan amendments of 2000, which only include a daily maximum water quality objective for this parameter.

Effluent Limitation B. 2 (Mass Emission Limitations for Toxics)

In accordance with Section III (C)(3)(j) of the Ocean Plan, a mass emission limitation has been specified for each toxic pollutant with an effluent concentration limitation in Table B.

Effluent Limitation B. 3 (BOD_5 and Suspended Solids Removal Efficiency)

At 40 CFR 122.102, the U.S. EPA requires removal efficiencies of 85 percent for BOD_5 and suspended solids, as the minimum levels of performance expected of secondary treatment facilities. The 85 percent removal efficiency is required for all flows up to 12 mgd. At flows greater than 12 mgd (during heavy rainfall events) some of the wastewater is routed around the biofilters and is blended with the secondary treated wastewater. During these events, not all wastewater receives secondary treatment and the 85 percent removal efficiency is not required. See Finding No. 3 of the Permit and Background Information in this Fact Sheet for a description of wastewater treatment.

Effluent Limitation B. 4 (Adequate Disinfection)

The purpose of this effluent limitation is to ensure that an adequate chlorine residual (1.5 mg/l) is maintained through the disinfection process and then to ensure that dechlorination steps are adequate to limit discharges of chlorine to the wildlife management area and to maintain the water quality objective of the Ocean Plan for total chlorine residual.

BASIS FOR RECEIVING WATER LIMITATIONS

Receiving water limitations from the previous permit have been retained by this Order and are supplemented with water quality objectives from Chapters II and IIIa of the recently amended Ocean Plan to ensure reasonable protection of beneficial uses and the prevention of nuisance. The discharge of waste to the Pacific Ocean shall not cause a violation of these receiving water limitations. These limitations are presented as general standards, as well as specific objectives, for the bacterial, physical, chemical, and biological characteristics of the receiving water.

BASIS FOR MONITORING REQUIREMENTS

Section 308 of the CWA and U.S. EPA regulation 40 CFR 122.44(i) require monitoring in permits to determine compliance with effluent limitations. Monitoring may also be required to gather data for future effluent limitations or to monitor effluent impacts on receiving water quality. The Permittee is responsible for conducting monitoring and for reporting the results to the U.S. EPA using Discharge Monitoring Reports.

The self-monitoring program includes monitoring of influent and effluent, as well as monitoring of return flow from the wildlife management area. Influent monitoring for conventional parameters (BOD_5 and suspended and settleable solids) is required to assess treatment performance. Monitoring of return flows from the wildlife management area for BOD_5, suspended and settleable solids, and pH will help to determine the level of treatment achieved, when flows are routed to this area. And, compliance with limitations for discharges to the Pacific Ocean will be determined by continuous, daily, weekly, monthly, or quarterly analysis of the discharge for BOD_5, suspended and settleable solids, pH, chlorine residual, fecal coliform, grease and oil, acute and chronic toxicity, and copper. In addition, monitoring of the discharge to the Pacific Ocean for the series of toxic pollutants, identified in Table B of Order No. R1-2003-0045, will be required one time in the lifetime of the NPDES permit.

Influent monitoring requirements described above are largely the same as those of the previous permit; however, Monitoring and Reporting Program No. R1-2003-0045 also requires continuous flow monitoring for determination of mean and daily peak influent flow rates.

Monitoring requirements for return flows from the wildlife management area are retained from the previous permit. And, requirements for effluent monitoring for discharges to the Pacific Ocean are also very similar to those of the previous permit. To be consistent with the amended Ocean Plan, the proposed Monitoring and Reporting Program includes very specific procedures for determining chronic toxicity. Monitoring of toxics one time during the permit lifetime is a requirement retained from the previous permit; however, the list of toxics and analytical procedures include slight modifications due to corresponding changes that occurred with amendment of the Ocean Plan in 2001.

The following tables present the proposed monitoring requirements for influent and effluent and return flow from the wildlife management area.

Table 4 - Influent Monitoring Requirements

	MONITORING REQUIREMENTS		
Parameter	**Units**	**Sample Type**	**Sample Frequency**
BOD_5	mg/l	24-hr composite	weekly
Suspended Solids	mg/l	24-hr composite	weekly
Settleable Solids	ml/l	grab	daily
Mean and Peak Daily Flow	mgd	continuous	daily

Table 5 - Effluent (Outfall No. 001) Monitoring Requirements

	MONITORING REQUIREMENTS		
Parameter	**Units**	**Sample Type**	**Sample Frequency**
BOD_5	mg/l	24-hr composite	weekly
Suspended Solids	mg/l	24-hr composite	weekly
Settleable Solids	mg/l	grab	daily
pH	s.u.s	grab	daily
Chlorine Residual[1]	mg/l	continuous	continuous
Chlorine Residual[2]		continuous	continuous
Fecal Coliform	mpn/100 ml	grab	twice weekly
Grease and Oil		grab	monthly
Flow	mgd	continuous	continuous
Acute Toxicity	TUa	grab	quarterly
Chronic Toxicity	TUc	grab	quarterly
Copper	µg/l	24-hr composite	monthly
Table B priority, toxic pollutants	as appropriate	24-hr composite	one time in the permit lifetime

[1] Immediately prior to dechlorination.

[2] Following dechlorination and representative of final effluent being discharged to the outfall.

Table 6 - Wildlife Management Area Return Flow Monitoring Requirements

	MONITORING REQUIREMENTS		
Parameter	**Units**	**Sample Type**	**Sample Frequency**
BOD_5	mg/l	24-hr composite	weekly
Suspended Solids	mg/l	24-hr composite	weekly
Settleable Matter		grab	daily
pH	s.u.s	grab	daily
Flow[1]	mgd	continuous	continuous

[1] Flow shall be monitored at both the discharge point to the marsh area and at the return point to the effluent holding pond.

BASIS FOR OTHER PERMIT CONDITIONS

Solids Disposal And Handling Provision

The disposal of wastewater treatment screenings, sludges, or other solids removed from the liquid waste stream is regulated by 40 CFR Parts 257, 258, 501, and 503, the State Water Board promulgated provisions of Title 27, Division 2, of the California Code of Regulations, and by the Basin and Ocean Plans. The Permittee has indicated that that all screenings, sludges, and solids removed from the liquid waste stream are currently disposed of at a local solid waste landfill in accordance with all applicable regulations.

Pretreatment of Industrial Waste

Permit provisions which implement the industrial pretreatment requirements of 40 CFR Part 403 are retained from the previous permit.

General Provisions

Most general provisions of the previous permit were retained by this Order and are made applicable to all permits by the U.S. EPA at 40 CFR 122.41. General Provision 16 of the previous permit has not been retained, as it is not applicable here. The requirement for Toxicity Identification and Source Reduction Evaluations for Acute and Chronic Toxicity identify procedures to follow, when toxicity limitations are exceeded; and the requirement for a Pollutant Minimization Program establishes procedures to follow in certain circumstances, when there is evidence that a toxic pollutant is present in the effluent above its effluent limitation.